



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,961	11/16/2001	Toshiyuki Waida	024938-00001	7887

7590 11/30/2004

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
Suite 600
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER

MARIAM, DANIEL G

ART UNIT PAPER NUMBER

2621

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/987,961	WAIDA ET AL.	
	Examiner	Art Unit	
	DANIEL G MARIAM	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/16/2001</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 17 recites in part, the limitation "A pattern identification program for identifying a predetermined pattern contained in an image" is non-statutory. A program is functional descriptive material, and is only statutory when embodied in a computer readable medium. Applicants may overcome this rejection by rewriting the claim as "A pattern identification program stored on a computer-readable medium for identifying a predetermined pattern contained in an image . . . " (See MPEP 2106).

Since claims 18-20 depend on claim 17, they are also rejected under 35 U.S.C. 101, for the same reason set forth above for claim 49.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-7 and 9-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamimura (6,678,427).

With regard to claim 1, a pattern identification apparatus for identifying a predetermined pattern, i.e., registered constituent element, contained in an image (See Fig. 1), said apparatus comprising: a storage section, i.e., dictionary, in which data related to said predetermined pattern

Art Unit: 2621

is stored (See for example, item 16, in Fig. 1); a first collation section for making comparison and collation between data related to an image, i.e., unregistered constituent element, such as characters and/or lines (i.e., ruled lines), in a first area, i.e., the inputted slip where the unregistered constituent element exists, greater than an area of said predetermined pattern, i.e., registered constituent element, in said image and said data related to said predetermined pattern (See for example, item 13, in Fig. 1; and col. 3, lines 63-67); a cutting, i.e., extracting/selecting, section for cutting out a second area smaller than said first area from said first area based on the result of comparison carried out by said first collation section (See for example, col. 5, lines 21-57); a second collation section (which corresponds to item 14, in Fig. 1) for making comparison and collation between data related to an image in said second area and said data related to said predetermined pattern, and an identification section (item 15, in Fig. 1) for identifying said predetermined pattern contained in said image based on the result of comparison carried out by said second collation section (See for example, col. 5, line 58 through col. 6, line 16).

With regard to claim 3, the pattern identification apparatus according to claim 1, wherein said data related to said predetermined pattern stored in said storage section comprises characteristic data representative of horizontal and vertical characteristics, i.e., frame or ruled lines comprised of vertical and horizontal lines, in said predetermined pattern, said first collation section comprises a first conversion section for converting image data in said first area into characteristic data representative of horizontal and vertical characteristics, and compares and collates said characteristic data converted by said first conversion section with said characteristic data of said predetermined pattern, and said second collation section comprises a second conversion section for converting image data in said second area into characteristic data

representative of horizontal and vertical characteristics, and compares and collates said characteristic data converted by said second conversion section with said characteristic data of said predetermined pattern (See for example, col. 1, lines 60-62; col. 3, lines 41-50; and col. 4, lines 39-63).

With regard to claim 4, the pattern identification apparatus according to claim 3, wherein said characteristic data obtained by said first and second conversion sections are normalized, i.e., correct, change (See col. 8, line 55 through col. 9, line 4).

With regard to claim 5, the pattern identification apparatus according to claim 1, wherein said storage section stores a plurality of kinds of different patterns, i.e., character, lines, as patterns to be identified (See for example, col. 1, line 60 through col. 2, line 2).

With regard to claim 6, the pattern identification apparatus according to claim 5, wherein said storage section stores data related to an area of each of said plurality of kinds of patterns contained in said image, and said first area is determined based on data related to said areas stored in said storage section (See for example, col. 5, line 30 through col. 6, line 5).

With regard to claim 7, claim 1 encompasses the limitation of this claim, and rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is applicable to claim 7.

Claims 9, 10, 11 and 12 are rejected the same as claims 3, 4, 5 and 6 respectively. Thus, arguments similar to those presented above for claims 3, 4, 5, and 6 above are respectively applicable to claims 9, 10, 11 and 12.

Claims 13 and 15 are rejected the same as claim 1 except claims 13 and 15 are method claims. Thus, argument similar to that presented above for claim 1 is applicable to claims 13 and 15.

With regard to claim 14, the pattern identification method according to claim 13, further comprising an image pick-up step provided between said first step and said second step for obtaining said image by picking up said image by means of an image pick-up device (See item 10, in Fig. 1; and col. 4, lines 30-33).

With regard to claim 16, the pattern identification method according to claim 13, wherein said image contains any of a plurality of kinds of different patterns, i.e., characters, lines, and said plurality of kinds of different patterns are stored as predetermined patterns in said first step (See for example, col. 1, line 60 through col. 2, line 2), and at least said second through fourth steps are repeated (Kamimura identifies the patterns based on three criteria or conditions) for each of said plurality of kinds of different patterns (See for example, col. 4, lines 38-52; col. 3, lines 15-65; and Figs. 2-4).

Claim 17 is rejected the same as claim 1. Thus, argument similar to that presented above for claim 1 is applicable to claim 17. Kamimura further discloses a pattern identification program for identifying a predetermined pattern contained in an image, wherein said program is executed by a computer (this feature is considered inherent within the document identification registration system of Fig. 1 because an identification program is required to identify the patterns of the digital picture data that is received by the system of Figure 1).

Art Unit: 2621

With regard to claim 18, the pattern identification program according to claim 17, further comprising an image pick-up step provided between said first step and said second step for obtaining said image by picking up said image by means of an image pick-up device, said image pick-up step being executed by said computer (See item 10, in Fig. 1; and col. 4, lines 30-33).

Claim 19 is rejected the same as claim 1. Thus, argument similar to that presented above for claim 1 is applicable to claim 19.

With regard to claim 20, the pattern identification program according to claim 17, wherein said image contains any of a plurality of kinds of different patterns, i.e., characters, lines, and said plurality of kinds of different patterns are stored as predetermined patterns in said first step (See for example, col. 1, line 60 through col. 2, line 2), and said second through fourth steps are executed for each of (Kamimura identifies the patterns based on three criteria or conditions) said plurality of kinds of different patterns by said computer (See for example, col. 4, lines 38-52; col. 3, lines 15-65; and Figs. 2-4).

Allowable Subject Matter

4. Claims 2 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art of Kamimura does not teach or fairly suggest wherein the first collation section carries out comparison and collation while shifting the predetermined pattern relative to the image in the first area one unit area by one unit area which constitutes data related to the image, thereby to calculate a difference level between the image in the first area and the predetermined pattern, and the cutting section cuts out the second area

Art Unit: 2621

based on an amount of shift of the predetermined pattern relative to the image in the first area at the time when the difference level meets a predetermined requirement. It is for this reason in combination with all of the other elements of the claims that claims 2 and 8 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5396588, 5696838, 6327387, 6477275, 6493465, 6584224, and 6788829.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2621

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

November 22, 2004